OBSERVERS: Fitch Su For to grid, SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 28 Sont SPECIMEN Pg.# or DIR. BAND NO. REMARKS TIME SPECIES ADPL Begin watch 1330 1330 6. Gull 3 Western Gul 12 Heermans Gull 1335 B. Pelican H. Gull 1337 Cormorant Pelican Cormovani 1339 Common Murre 1341 B. Pelican W. Gull 1347 C. Murre 14 Sooty Shear. Red Phalarope 11 1343 Calif. Gull Cormorant 2 1345 Heerman's Gull C. Marre 1349 Heermans Black Retret New Zealand Diear 1 Gull C. Murre 8 Cormorant W. Gull 12 B. Pelican 1350 Warblersp. possibily bellow breast 1355 B. Pelican Commorant W. Gull 15 1358 B. Palican 1402 C. Murre 1405 B. Pelican 1407 Red Phalarope 1411 SI-MNH-958-6 B. Pelican Rev. 5-66

		1					OBSERVERS:
	-	\longrightarrow		_		ONIAN INSTITUTION	
Shi						ISION OF BIRDS EA DAILY LOG - E	
Di	Direction				SPECIMEN		Date 28 Sept. 1967 Pg.#
	TIME	SPECIES	#	DIR.		. REMARKS	ADP
	1415	Marine	1			- Catifornia seation	
	1418	elican	2				
	1419	C. Murre	3				
	1420	Worthern				7 Ohrom	
		Pholorope Marine	4			(30,19,19,6 (in a smooth sea area and approx. 200' long as below:
		mammal				- California) outlined Sealion	V. Phalaropes / Mammal
ē	1425	C. Murre	1				Sea weed
	1427	Cormovant Rhallaropa	3				
	1470	sp. p.	2				
	14 70	6.6ml	2				
		Common Murre	,				
		B. Pelican Sooty Shear	1 .			*	
	1430	W. Gull	1		+		
		Heermann's Gull	1				
		B. Pelican	1				
	1432						
	1433	ELLCAN!	2		1		
	135	C. Murre Sostian.	1				
		W.Gull	5				
	[438	Scoty Shear	r. 220t	-		sitting on 40 in flo	· i
	1439	Phalaropa	1.5			2 on Po	CK
		260					SI-MNH-958-e Rev. 5-66

		T					OB	SERVERS:
Shir	_			_	DI	VI	NIAN INSTITUTION SION OF BIRDS	
	Ship Direction				SPECIME		A DAILY LOG - E	Date 28 Sept 1967 Pg.# 3
	TIME	SPECIES	#	DIR.	BAND I	10.	REMARKS	ADP -
	1441	Pomarine	1					
	1446							
	1450	C. Murre						
	1451	Sooty Shear.	1					
	1年52	6 Murre N. Phalarope W. Gull	1		*			
	1455	Sooty Shear C. Murre	9					
	1458	W. Gull SootyShear	1					
	1500	60.6W1	3				*	
	1501	W. C. 11	_					
	1504	W. Gall	-1					
	1507	W.Gull			+			
	15 08	W. Gull	1			T	with Idead fish and 2 sh	arks
	1510	6. Marre	1					
	1513	P.f. Shear.	5 -					
	1515	W. Phalarup W. Gull	24			1	sitting on H ₂ O	
	1520	SootyShear	. 1					
	1525	Marine	-30±5			-	- School of 30±5 Dall Por it sank	poises - shot I but
		P.f.Shear	2					
	1553		(
	1556	W.Gall	1					SI-MNH-958- Rev. 5-66

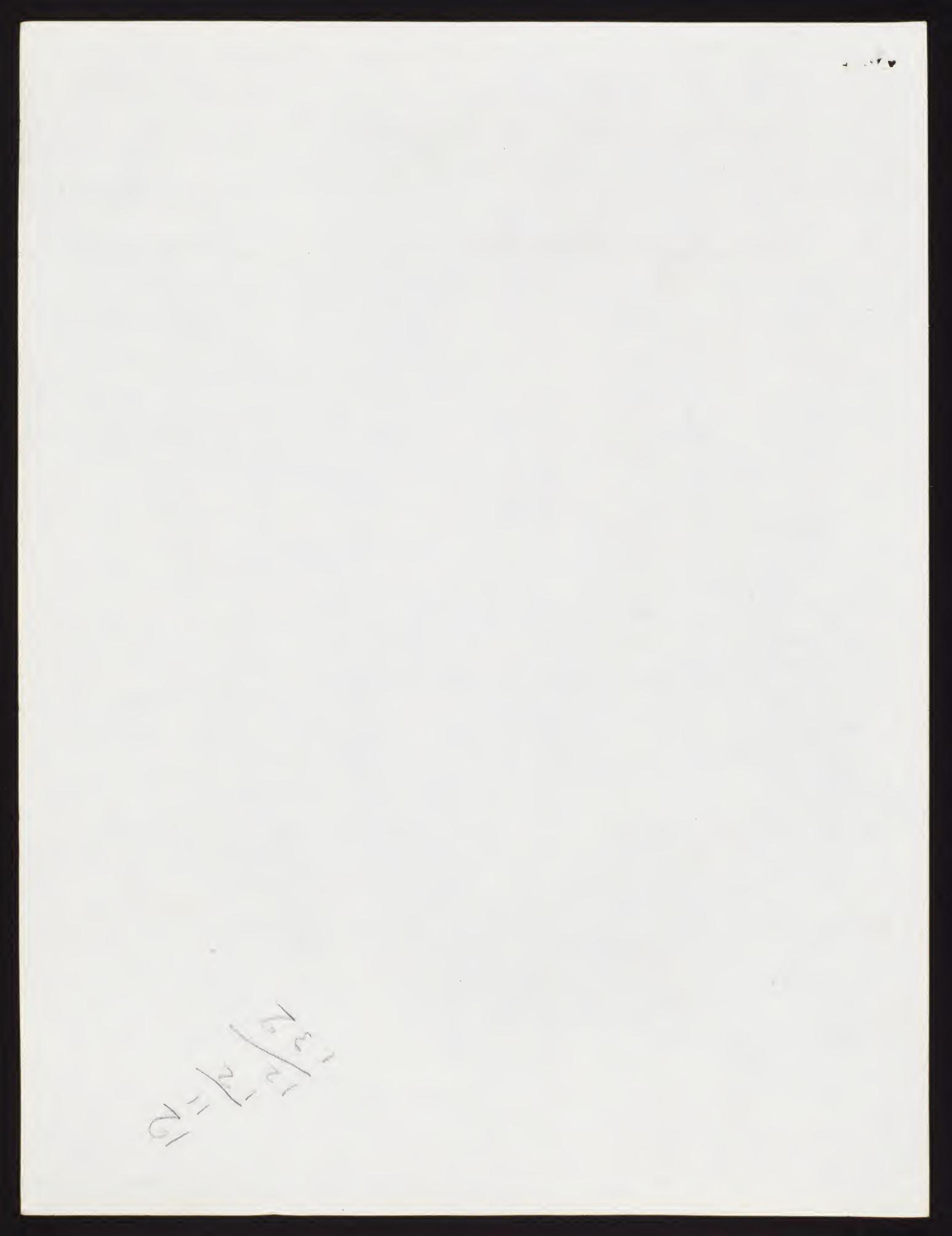
	T				OBSERVE	RS:
		/	100000000000000000000000000000000000000	ONIAN INSTITUTION		
Ship Direction	on /			ISION OF BIRDS EA DAILY LOG - E		Date 28 Sept. 1967 Pg.# 4
TIME	SPECIES	#	DIR. BAND NO	• REMARKS		ADPL
1604 1605 1610 1612 1612 1620 1627 1627 1629	B. Pelican 10. Gull Sooty Shear Sooty Shear Sooty Shear P. F. Shear Warine Marine Mari	1 - 1 - 500 a 35 5 - 1 - 1 2 3 30±5 2 1 - 2 3		observed in floating ve sighted ap making making mann all materials an	floating sea wo large flock on getation, offs prox. 4 mile for mals Dentificed of a were chady were all amost	water near shore well rig From flock -
1641	B. Pelican Pof. Shear. W. Gull Iterring Catif. Gull Sky	3	F	- 3 Gull preyed	upon by Skn	
						SI-MNH-958-e Rev. 5-66

		1				OBSERVE	RS:
Shi	_			DIV	SONIAN INSTITUTION VISION OF BIRDS SEA DAILY LOG - E		
				SPECIME	N		Date 28 Sept. 67 Pg.# 5
	TIME	SPECIES	#	DIR. BAND NO	O. REMARKS		ADP
	1645	Sterr					
	11,48	P-C Shen					
		When zed Shirmster					
		Blubflet	1 0				
	1	Star P.					
,							
+	1711	W. gmill				**	
	1718	Gul Huin					
	1735	Dull	10	56	behavin the	Blobushile	in that they
					show still & Hon		
		-					
31	1730						
							SI-MNH-958-6 Rev. 5-66

1	, at	T					OBSEF	RVERS:
Ship				_	DIV	ONIAN INSTITUTION ISION OF BIRDS EA DAILY LOG - E		
Direction				SPECIMEN				Date 28 Sept Pg.#
TIM	E	SPECIES	#	DIR.		. REMARKS	Lipp	
		R.f. Shear. W. Gall	4 5					
	13	W. Coull	5					
		W. Gull	3					
ITE	50	Herming Colif.	4					
	- 1	W. Gull	5					
180	2	P.f. Shear						•
180	3	W. Gull	1					
189	po	w. Gull	1					
		-						
				•				
								SI-MNH-958- Rev. 5-66

* Yen	w Y					OBSERVERS:
		/				7-10 CHAN 10-12 DOHN
				C) ET ETT C		12
-	\times		+		ONIAN INSTITUTION ISION OF BIRDS	
Ship	_ /				EA DAILY LOG - E	~ ~ ~
Directio	n /			SPECIMEN		Date 29 SEPT. 67
TIME	SPECIES	#	DIR.	or BAND NO	. REMARKS	ADP
0700	1	"			- SUNRISE BEGIN	ORS.
6701		0	OSR.		- dhe following	
	PINK FOOT	1	NW		the following	
	PHHL-Sp	i	we.		2 SLICK AREA WINDE	H BLHCK FLOTSHM
	SOOTY SH	1	022		(VEG. LOOKING CHUNK	S, IN WINDROWS
	BR. PEL.	1	coe.			0700-0732 (3)
0.815	BFA	2	cae.		- dhe both, following	6 MI.
0827	J4E6.5 P	1	w.		-PARREL 2 ltph	
0835	TWEET	1	Oe-		- WHRBLER	0733-1749 (2)
0837	SOOTYSH	1	5			
0844	JAEG SP	1	cee			107 MI.
	SOUTYSH	2	a			
0847		1	5		- TERN/JALG. FLYING	241
	SOUTESH	1	5			
	JAEGSP.	t	æl			
	RED PHAL	2	cae.		ON ASLICE	
	Soory SH.	1	5			
0935	J466 Sp.	1	S		Pom. REL. 2 Ltgl.	
	Soore SH.	1	S		Z Lieger.	
	STERNAS	3	S		-arctic?	
	50079 54	1	S			
0945					-DELPHINOS - CA 50	DID NOT FOCKOWBOW
	BIRD	1	5		-Tena/JAGG.	
	BLACK STPET	,	cad		LICA UTEG.	
1005	ALCID SP	3	æ			
1015	JAEG SP	1	CAR			
	ALCHO SP	Ī	ce			
1017	2017	Ť	ae -		ONH20	
		1				
1019		1	Almeron			
1020	BLACK STP.	1	-	-		
1023	Scoty 54.	1	-			SI-MNH-958-6
						Rev. 5-66

T. W			OBSERVERS:				
Ship Direction TIME SPECIES	#]	DIV		Date 298ept 1967 Pg.# 3			
1650 WRSP 1704 WRSP 1707 WRSP 1710 WRSP 1715 BFA TOSS WOSP 1805 STORMPET 1815 WRSP 1820 WASP 1837 WRSP 1837 WRSP 1908	5-11-21	SIR. BAND NO S W O O O O O O O O O O O O O O O O O		45-1908 0 6 MI. WRSP-5 STORM-3 ORSP-1			
				SI-MNH-958- Rev. 5-66			



OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 30 SEPT 1967
Pg.# 1 SPECIMEN or ADP DIR. BAND NO. REMARKS SPECIES TIME 0717 - SUNRISE 07/8 SOOTY SH 000 - FLUSHED 0745 BF4 000 I mottled below dark above, I malled below 0755 WRSP 00 LND & BOUT USOT SAEGSP 0827 STORM PET 0717-1943 (1) 0847 72 Mi. 0858 SE 1 1944-1904 (2) 6900 BFA 000 WHITE ABOUT 6905 STORM PET 50 0917 Storm Pat. MI 55-3 wasp- 11 0922 WRSP 0 Jsp. 1 0926 WRSP ST.PET - 9 0938 WRSP 0 RPAAL -0942 WRSP 0 DRSP-1948 BF A joined 1st albatross following ship 9 1005 BFA 0 -joined 2nd, total of three following ship, 0 1016 Storm. Pet. 8 1021 Storm Pata E 1037 Sout & Shoar. 1138 WRSP SVV 1143 RED PHAL 5 ilt 4 olk dhe hove light leads 1145 BFA 00 1235 DRSP SSS 1247 WISP 887 1309 WASD 0 1311 429C 0 1316 WRSP 0 1338 Sorty Sharp S SI-MNH-958-e 1421 WR3 P 3 Rev. 5-66

*		1					OBSE	RVERS:
Shij		X			DIV	ONIAN INSTITUTION ISION OF BIRDS EA DAILY LOG - E		
Di	Direction				SPECIMEN			Date 30 Sept. 1967 Pg.# 2
	TIME	SPECIES	#	DIR.	BAND NO	. REMARKS		ADP
	1441	Stormpe	t 1	S-		- possibily dark run	logo	
,	1545	BFA STORMPET WRSP	(5)	a.		-adhilt	BT COUN	T BOTH VESSALS
				æ			55 190	4 (9)
	1650		6	coe				
		PHAL SP ORSP						Storm PET - 1 WASP - 3
		WRSP		86)				PHACSP - 1
	1904	WILST	1	887		- SONSET CLI	200 000	5 4
						- 00 NS Z F CZ	DSE OBS.	
						,		
				-				
						-1-		
4		1			-			
								SI-MNH-958-6 Rev. 5-66

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OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Date 1007.1967
Pg.# Direction SPECIMEN or ADPL DIR. BAND NO. REMARKS SPECIES TIME 0701 - SUNRISE ON THE QUIET PACIFIC; BEGIN SCIENCE 0707 TENN/JAEG Q2 0720 Photoropesp 1490-19041) 0721 BFA 0 - following ship 6-0726 Storn pat S 0728 JAEG.SP 5 6738 aring high in 30 ht. wind Scott SH. Sa 0741 R-PHAL cee - large all denk - Paleboot ??? 0742 SHEARIPET 5 0743 SOOTYSH 5 0750 TERNHAGE Cel 0701-0937 0800 S0074 5H 5 W 0801 Bino cee 27 MI. 0803 SOOTYSH 5 W 0805 0938-1855 SW 0806 SW 0808 RPHAL MOVI 106 0811 SOOTYSH 500 0815 4 5W T/J-2 0816 5W 2 PASP. - 1 Sa 0819 0820 ST.PET. - 1 4 54 REPHAL 0820 5 JSP - 1 0828 SOUTY SH. 54 55 - 35 0829 TERN SP. 1 SE 0830 SOUTTSAI RP4. - 9 Su 0834 TERUSP ac 5/P -0836 11 14 0840 TERN/Gue SAB. 6000) W 0844 TERUSP 5 0845 SOUTY SA T/6-5 SW 0847 62 V 11 SW 0852 Tern/Gul 300 4 0854 Sooty Shear SI-MNH-958-e W arcing high Rev. 5-66

OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date / Oct. 1967 SPECIMEN Pg.# 3 or ADPL SPECIES DIR. BAND NO. REMARKS TIME 1426 Soory SH Sa 1513 SW ic 1529 COL BIRD 1539 Storm pet. SW 1613 Sootysu. SW 1621 Storm pet. Sw 1653 Bird SW 1732 CORSP W 1735 P.F. Shear SW 1736 Stormpet. W - dark rumped 1820 WRSP SW white rump confirmed 5 Pall Porpoises That 1825 WRSP S 1832 Marine Mammal 1842 NBSD Pd 200 W 1855 Singet SI-MNH-958-e Rev. 5-66

OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 2 October SPECIMEN or ADP DIR. BAND NO. REMARKS SPECIES TIME 0715 - SUNRISE BEGIN OBSI 6726 WRSP cel 0734 WRSP 88 dh WHALE IS pour - Humpy/Spenny 0735 0 Qe_ 0740 BFH 07 45 SOOTY SH 5 002 0748 SPORMFET S 0750 SOOXY SH 8 armulater while making BT Stop BFA 0800 5 0816 SOOTYSH WRSP-14 0817 STORMPET 00 SS - +318 2 0830 SOOTYSH STORM - 2 0844 11 11 TEAN - 1 0904 Sooty Shear 5 PHALSH - 1 0919 Sooty Stear 5400- 1 69 26 WRSP 5 GP - 1 6290 S Sooty Shear. 38 8860 Teinsp. w on horizon 0950 WRSP 5 0955 WRSP 5 0957 Scoty Shear. 1015 WRSP 5 Sooty Shear 1023 - dark maderports, white underwings bark above S Exilus for a stand no " w "Detravai Ation 1031 Phelarope B 1038 WRSP S 10 43 Socty Shear 3 following ship (toto 2) 1058 BFA (i) 0 Made turn (to O SI-MNH-958-e 110 H Sooty Shear 8 Rev. 5-66

5 2/5

OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Date 20c7 1967
Pg.# 2 Direction SPECIMEN or ADP SPECIES DIR. BAND NO. REMARKS TIME 10 dh 2 lt (3) BFA 1200 022 WRSP 1340 SE 1605 WRSP 8 1641 WRSP 55-1905 1720 SOOTY SH 5 109M1. 1747 5 1752 WRSP NON-ADO HEN PLOTED AT 1900 5 SHOVELER 1808 INVESTIGATED 000 called 2x NON BREED PLUM NO BLACK IN 1815 GOLDEN PLOU. 000 14 XILLARIES 1834 WRSP 3 1845 BFA 147 - 14 post. PruB UPTO 18 1900 WRSP 1905 -SUNSET CLOSE OBS. SI-MNH-958-e Rev. 5-66

						OBSERV	ERS:
Ship Direction				DIV	CONIAN INSTITUTION VISION OF BIRDS SEA DAILY LOG - E		Date 3 OC 1967 Pg.#
TIME	SPECIES	#		or	O. REMARKS	AT	P
0705					-SR BEGIN	005	
0720		0			- follow		
6734		1	881			0705	- 3
0740	1	1	err		· ·	10 M	
0748	1	1	css				
-	BFA	@	Oe -		-4dh		3
0920	SPORTS H STORM PET	2	SCU			0803-	6
	TERNSP.	1	SE		aretie?	1734	
0950	SEMYSH	1	SE -		- arene	93 11	
0952	TERUSO	2	SE			, ,	*
1015	WRSD	1	S		(6) 7ENN- 3		
1026	Scoty Shecir				55-5	1735-	1849 (9)
1035	WRSP	1	SES		STORM- 2 WASP-15	14M	BSTRET-1
		,	0		DRSP - 1		unsp-1
1104	WRSP	,			JSP - 1		32
1	WRSP	2	5 8		RPHAL- 1		2,10
1139	WRSP	1			4LCID - 1		aprol c
1142	11		888		29 V		1 x /0 x / 3
1200		/	81		-BT drup		10/0/0
	WRSP	1	26				13
	WRSP	1	88				1/6
	DRSP	1	cee				
	wasp	· t	cea				
	SOOTY SH	1	SW				
1536	JAEGSP RED PHAC	1	8 -		-Pom? et. ph		
1558	RED PHAC	1	NE				SI-MNH-958-e Rev. 5-66

		1					OBSERVERS:	
Shi	p rection				DIV	ONIAN INSTITUTION ISION OF BIRDS EA DAILY LOG - E	Date 3007 '6 Pg.# 2	67
+	TIME	SPECIES	#	DIR.		. REMARKS	ADP	
	1600	BFA	9	02 -		- 6 dl 1 mottles		
	1921	WRSP		S			55 1849	
	1729	Nico	1	2				
	1748	Black Pet,	1	S		- sitting on log		
	1837	WRSP	1	3				
	1838	SbotyShear	1	SE				
		BFA	0	0		- in Had around object of total of TBFA G	t in water - porpoise postollowing shin i	:216,19
	1849					-SUNSET COSE	3b.)	
						*		
				,				
								*
4.								
							SI-MNH- Rev. 5	

OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 40c7.67
Pg.# 1 SPECIMEN or ADP # SPECIES DIR. BAND NO. REMARKS TIME 0710--SONRISE BEGINOBS. following. 0940 BFA 0850 Titlg 2 0920 WRSP 2 0926 WRSP W 0934 BFA - following ship ttotal of 4) 0 0947 WRSP 0 6950 Shearwester -on horizon, moving W WRSP-34 1002 WRSP 5 SH sp - 1 1011 WRSP S STORM - 13 1015 WRSP SW 1024 WRSP 8 1031 WRSP 0 929w 8801 9 10.45 WRSP 2 1050 WRSP 0 sitting on the , flushed by ship 1054 Stormpet N 1117 WRSP 3 1128 WRSP W 1/45 WRSP ilt 3 dh. all together 00 BFA 1150 (4) 00 1220 wasp 4 all 1230 00 1232 QUE 12 35 2 5 1238 SOOTY SH SI-MNH-958-e 1242 WRSP Rev. 5-66 æe

OBSERVERS: DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 400 7. 67
Pg.# 2 SPECIMEN or ADP + SPECIES DIR. BAND NO. REMARKS TIME SOME SEVERAL AMOUNTS OF 1248 STORMPET al LOGS AND NON MOTILE OBJECTS HERE ABOUT. 1250 WRSP al 0710-1510 1305 0,00 84m1. 1307 SORM PET 900 1511-1909 1312 WRSP 5 1327 STORM ET 5 41 MI-5 1330 1333 WRSP 5 1337 STORMPET 134/ 11 4 - UERITABLY, ONLY FEW TO 1429 WRSP 5 NEVER SEEN LOGS AND CONSUM HTORY WRSPI OVER LAST 45 MIN. 1437 WRSD S 1500 ERS 8 88 1505 Sur 5 817 817 SEL 16/2 TO40 Sooty Short 5 1648 WRSP 0 SI-MNH-958-e 174 0 Rev. 5-66

	W T				OBSERVE	RS:
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Ship Direction	n		DIV	SONIAN INSTITUTION VISION OF BIRDS SEA DAILY LOG - E		Date U Wtober LD
TIME	SPECIES	#	SPECIMENOR OR DIR. BAND NO		ADP -	Date 4 October 67 Pg.# 3
1755 1756 1830 1833	WRSP SoutyShow SoutyShow Ston Rek SoutyShow	1 2	SW NO		SS-6 WRSP-13 STORM-2 21	
1841	LARSP		S	-SUNSET	CLOSEO	85.
						SI-MNH-958-e Rev. 5-66

OBSERVERS: SMITHSONIAN INSTITUTION DIVISION OF BIRDS Ship AT SEA DAILY LOG - E Direction Date 5 Oct. 1967 141101 Pg.# / SPECIMEN or DIR. BAND NO. REMARKS TIME SPECIES OPEN OBS. SUNRISE 0719 SCATTERED CLOUDS NW 10-15 NO FEW 0737 STORMPET S 0800 BFA 0 WHITE CAPS 021 FLYING FISTI WRSP CONSPICUOUS 0835 S STORMVET 0856 0658 SE 0907 WRSP No binds since 915 but a few filying 1000 fosh 5 WRSD 1025 STORM 1048 1100 149 SW 1205 stop for BT Drop BFA total of 2 following ship, both dark phase 1208 Gas Hawk - flying high, not attracted to tug SW 1220 -begin moving observational andequors anew 1531 WRSP 1258 WRSP 0 0719-1150 WASP 15 1310 11 .11 1324 WRSP 48 MI. SE 1345 WRSP SE Facility. 1150-1856 (8) 1415 WRS1 888-69 Mr. flushed from water. 1530 1550 - Tursions - co. 30 animals. large animals. 30-460 Not claring water. Were rising smells, iet. to hing smells in 1. Al SI-MNH-958 a risk as a surfer down. They (over) Rev. 5-66 124-11'2

only doesn't Darsols longe. Port did not come to bown who church ihr pod solit. We findly gate a very good look at her of the animals. I deslipsation visitive.

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Shi	p				IVISION OF E		_		
	rection	n						Date C	5 oct 17
				SPECIN or	1EN			Pg.#_	
	TIME	SPECIES	#		NO. REMARKS				
	1657	WRSP	(000		55-18	356		
	1702	£ ((000					
	1712	(3	1	cel.					
	1717	٤((Cal					
		Scoty Shap	è						
	1759	R. Phalar ope	!	8					
	186	- rhalar ope		(4)					
	io	Tern sp.	•	SE					
	1811	WRSP	t	0					
	1850	Sooty Sha	ar 1	5					
	1855	WRSD		SE					
	1856	WRSP		8					
	1856								
				and the state of t	Sunset				
					*				
	,								
			4						SI-MNH-958-e Rev. 5-66

PRELIMINARY REPORT

EASTERN AREA CRUISE NO. 25
Eastern Grid Survey No. 14

28 September - 5 October 1967

Prepared by
Robert L. DeLong

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EASTERN AREA CRUISE No. 25 Eastern Grid Survey No. 14

28 September - 7 October 1967

Personnel: R. L. DeLong (Biologist-in-charge)

Richard D. Chandler

John Fitch

Itinerary: 28 September 1100 Depart Treasure Island, San Francisco

29 September 0440 Enter Eastern Grid at Pt. Ash 6 October 0830 Depart Eastern Grid at Pt. Oak

7 October 0730 Arrive Long Beach

Methods:

Observations were made from a light tug during this survey. During periods of moderate, choppy seas which prevailed through most of the survey, observations were taken from the lee wing of the pilot house. On 4 October when seas and winds moderated observations were held from the flying bridge. No nocturnal observations were taken.

Bathythermograph casts were made at four hour intervals in the grid area.

Two departures were made from the normalignid track. On 2 October 25 miles were cut from the western end of east-west legs 3 and 4. Again on 3 October it became necessary to divert south of the normal track of east-west by 4 to avoid an area in the Pacific Missile Range where there was an apparent firing firing (see Figure).

Acknowledgments:

Fine cooperation was received from Captain Frazier and crew members of the boat. A special thanks is extended to R. Cordinier who as a volunteer made the trip to serve as aerographer and to make B-T casts. Also Capt. Frazier is given special thanks as he participated in nearly every B-T cast during the entire trip.

The B-T winch was furnished by Naval Electronics Laboratory in San Diego. A special thanks goes to Mr. George Schaffer of that organization who had the winch serviced and delivered to the boat.

Vessel Considerations:

The light tugs used in the survey worked well, i.e., they completed the grid and the work was done. However due to their size and, more important, their characteristics at sea, the quantative survey data are not believed "good" (accurately indicative of actual numbers). This

was caused by observers being restricted to the lee side of the pilot house as frequently the windward side was taking heavy spray. This effectively limited the angle of observation; created a blind spot of 90-135 degrees, i.e., the horizon was cut by one-third. Also due to the fast, erratic, and severe motion of the vessel in even moderate seas the observer is not able to use field glasses extensively to scan the horizon. This greatly lessens his radius of visibility which in turn causes him to record fewer birds.

Were heavy seas (10+ ft) encountered during a survey on these vessels, observations would have to be secured as all hatches are then secured as green water covers the pilot house. Even in more moderate seas if the vessel is headed directly into the sea the same "wet" conditions result.

Over 826 miles and 82.8 hours of diurnal observation, 390 birds of 13 species* were recorded. One bird (a Shoveler) was collected. The low number of land birds recorded is thought to indicate lack of attraction to the small vessel. However it is possible this marks the end of their migration/dispersion movements.

Synoptic highlights:

1) High numbers of migrating Sooty Shearwaters.

2) Increase in "Leach's" Storm Petrel numbers over last survey and their apparent southern migration.

3) Continued low number of phalaropes.

4) Only one land bird recorded.

5) Few marine mammals recorded.

Black-footed Albatross 40

1	7	1	5	Ť	6	*
1	14	1	4	1	8	1
1	4	1	5	1	7	1
8		1		*		1

The number of albatross recorded on this cruise compares favorably with that of the last three cruises. This strongly suggests that albatross do follow small vessels as readily as they do larger vessels (the previous three surveys were taken from a 400+ ft. vessel).

There is no apparent explanation for the occurrence of the 14 recorded albatross in sector 4.

On 34 of the total 40 albatross, rumproolor was recorded; the breakdown follows:

*Albatross are not included in either of these totals.

Pink-footed Shearwater

3

One bird was seen on 29 September in Sector 2, and two birds were recorded 1 October in Sector 6.

Sooty Shearwater

100

During this and the last survey Sooty Shearwaters have been moving through the grid area. The general movement is toward the southwest. A few birds seen in the western section of the northern and central sections are moving south. These birds may join the south-western "stream" of birds or may represent a separate movement. The movements around Point Conception where there are concentrations of the birds show the southwest movement but there is a possible funneling of birds to this area as though it were a jumping off point for migration.

That there are still large numbers of sooties north of Point Conception at this time and that we have not recorded great concentrations in migration, suggests that this migration occurs slowly in a "piece meal" fashion. This is unlike the Slenderbill Shearwater migrations in the Central Pacific where we have massive flocks moving fast through the area. Sooty Shearwaters have been recorded sitting on the water in the grid during the past two surveys.

Leach's (type) Storm Petrel

White-rumped Storm Petrels	147
Dark-rumped Storm Petrels	4
Storm Petrel sp.	40
	191

Numbers have increased over the last survey. Many of the birds recorded during this survey were moving north. This movement was direct and rapid and is undoubtedly a migration. There was an increased population of these south-moving birds with brilliant white rumps. This strongly suggests that the birds moving south through the area at this time are birds from northern breeding populations rather than a final southward movement of southern birds that moved northward through the area on earlier surveys this summer.

Black Petrel

Again on this survey as on Eastern Grid Survey 13, a few birds of this species were recorded.

The appearance of this coastal bird is significant. That one bird was seen in Sector 2 at 35°00'N, 122°45'W demonstrates the ability of these birds to go to sea over a hundred miles from land. The other birds were seen in Sector 6 within 70-100 miles from the Channel Islands. All three birds probably represent birds that were based in the Channel Islands during the past breeding season.

Golden Plover

One bird was recorded on 2 October at 32°32'N, 125°31'W in Sector 4.

Phalarope

 Red Phalarope
 14
 1 ' 4 ' 5 '

 Phalarope sp.
 4
 0 ' 1 ' 0 '

The Phalaropes, in very low density, were moving south; undoubtedly in migration.

Jaeger/Skua

Jaeger sp. 11
Skua 2
Jaeger/Skua 2

Eighty percent of the Jaeger/Skuas were recorded in Sector 2 on 29 September. These birds are very abundant to the north from Monterey Bay south at this time. Thus it is to be expected that they occur primarily in the northern sector of the grid.

Tern sp. 34

0 '17 '11 '

As can be readily seen over 80 percent of the terns were recorded in the north east and north central sectors. The numbers recorded during this survey represent an almost 200 percent drop in numbers over last survey. These birds may represent the last of the Arctic Terns migrating south.

Alcid

5

0 1 4 1 0

These birds were probably Xantus Murrelets or Cassin's Auklets. The distribution of these small alcids has been the same over the summer and fall.

Accidentals:

Shoveler

One shoveler was collected at 32°32'N, 122°53'W in Sector 4. This bird was a lone immature female. The bird flew around the ship before collection.

Warbler sp.? 1

One possible warbler was recorded in Sector 2.

Grid Mammals

Mammal densities have dropped fantastically during the last two surveys. Hopefully the significance of this population density change will become clear upon later analysis of these mammal data.

1 October 1832 hours 33°21'N, 122°38'W Delphinus 35± Rel. 2

1 October 1832 hours 33°21'N, 122°38'W Dall Porpoise 5 Rel. 2

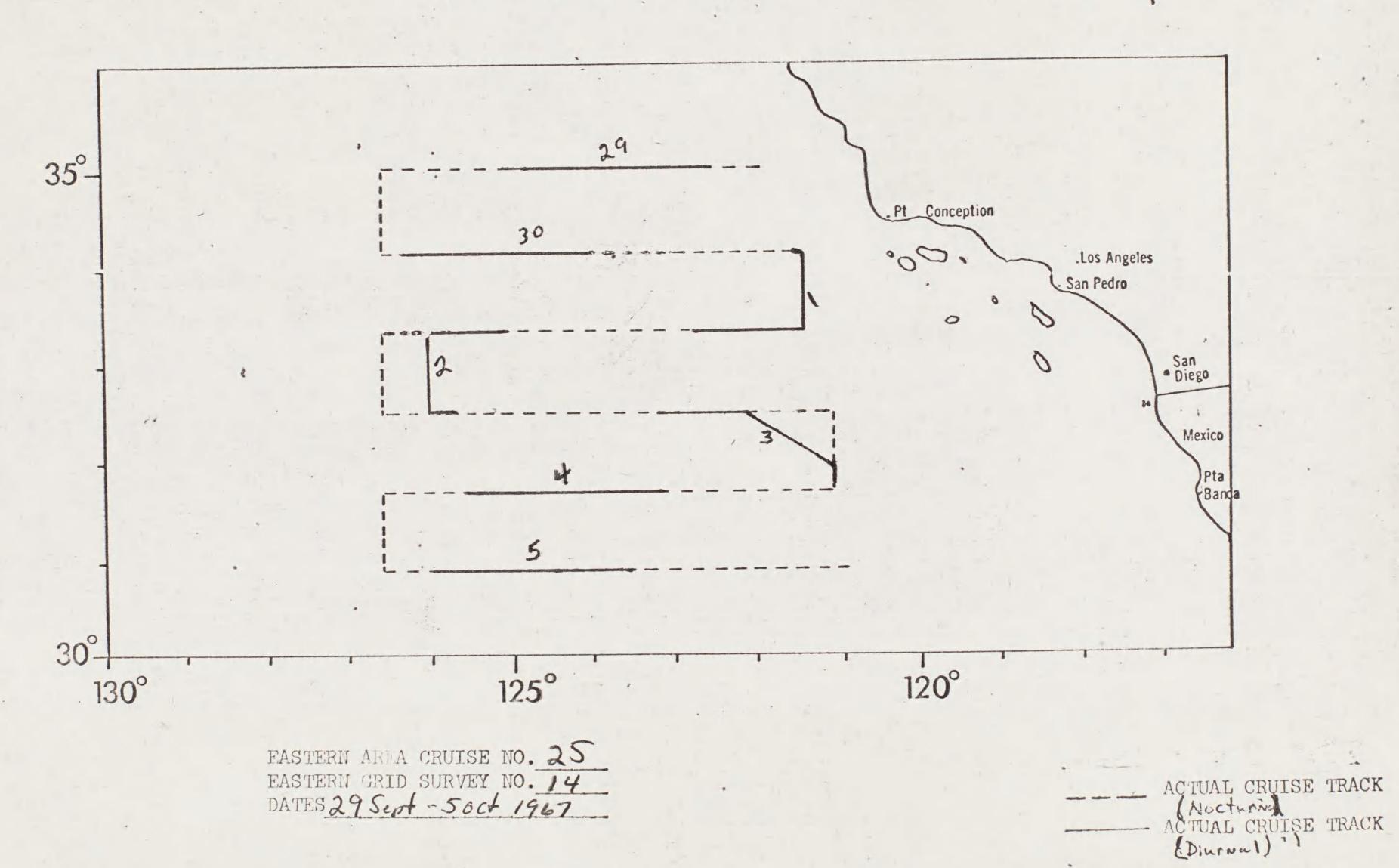
2 October 0740 hours 33°16'N, 125°22'W Whale 1 sperm/humpback

5 October 1530 hours 30°46'N, 124°10'W Tursiops 30 - Chased and seen well; see notes.

Non-Grid:

Non-grid observations are limited to the afternoon of 28 September from San Francisco Bay 63 miles south to 37°N latitude. Densities were fantastically high in this area with ca. 16 birds per linear mile. Sooty Shearwaters accounted for about 75 percent of the birds recorded. A large flock of ca. 500 sooties were associated with a pod of about 35 Zalophus. New Zealand and Pink-footed Shearwaters were also abundant in this area. Common Murres, small Alcids, Western and Herring/California Gulls, Cormorants and Brown Pelicans were the other common birds seen in this area.

EASTERN GRID CRUISE TRACK



Eastern Grid Survey # 14

Table 1. Daily Summary of Diurnal Observations

Date	# Miles	# Hours	# Birds	# Species	Linear Density
29 Sept. 30 Sept. 1 Oct. 2 Oct. 3 Oct. 4 Oct. 5 Oct.	129 114 120 109 117 125	12.1 11.8 11.9 11.8 11.7 11.9	82 31 105 38 35 70 29	11 7 6 7 2 4	.635 .272 .875 .348 .299 .560
Total	826	82.8	390	13	.472
Av./day	118	11.8	51	5.9	~

Eastern Grid Survey # 14

Table 2. Summary of Diurnal Observations by Species

Sooty Shearwater Pink-footed Shearwater Shearwater sp. Shearwater/Petrel Total Shearwater Petrel 106	Number Observation 100 3 1	% Total s Birds 25.6 0.8 0.3 0.5 27.2	Number Collected	Number Sera Samples	
White-rumped Storm Petrel Dark-rumped Storm Petrel Storm Petrel sp. Black Storm Petrel Total Storm Petrel 194	147 4 40 3	37.7° 1.0 10.3 0.8 49.8			
Brown Pelican Golden Plover Red Phalarope Phalarope sp. Total Shorebirds 19	3 1 14 4	0.8 0.3 3.7 1.0			
Jaeger sp. Skua Skua/Jaeger Tern sp. Tern/Jaeger Tern Gull Total Tern/Jaeger/Skua/Gull 58	11 2 2 34 4 5	2.8 0.5 0.5 8.7 1.0 1.3			
Alcid sp. Shoveler Passerine sp. Bird sp.	5 1 1 3	1.3 0.3 0.3 0.8	1		
TOTALS 390	٠.	100	1	0	

Eastern Grid Survey # 14 29 Sept. - 5 Oct. 1967

Table 3. Linear Density and Abundance of species by sub-division.

			Table years						
		1	1	1	V .	1	1	1 C	1
	1	1 2	1	3 1 1-	2-3 1	4 , 5	1	6 , 4-5-1	5 1
		1	1	1	1	1	1	t	. 1
Sooty Shearwater	.034	3 1.101 1	5 11.06	51 351.196	531.165	18 '	1.102	19 123	37 1
Pink-footed Shearwater		.007	1 1	1.004	1,		1.011	2007	2 1
Other Shearwater Petrels		1	1 .03	30 1:.004	1:		1.005	1=1.003	1 '
Black Storm Petrel		1.013	2 1	1.007	21	1	1	1	1
"Leach" Storm Petrel	.341	30,.128 1	9 1 .03	10 11.185	501.147	16 .300	31.183	34 176	53 •
Brown Pelican		.007	1 1	1.004	1.	1	1.011	2 .007	2 1
Golden Plover			t	1 1	1.009	1 ,	1	1.003	1 .
Phalaropes	.011	1020	3 15	2 51.033	91.009	1 +	1.038	7 :.029	8 .
Jaeger sp.	.011	1 1.054	3 03	11.037	10:	1	1.005	1003	1 .
Skua		1.013	2 ,	1.007	21	4		•	1
Tern sp.		1.114 1	7 1 .33	3 11:.104	281.009	1 '	1.021	4 .017	5 1
Other Charadriformes		1.027	+ .2	2 71.041	11:	1	t	1	1
Alcid sp.		1.027	+ 1	1.015	4 .	1 1	1.005	1 1.003	1,
Shoveler		1	1	1	1.009	1 .	1	1.003	1 :
Passerine sp.		1.007	1 ,	1.004	1:		+	1	1
Bird sp.		1	1 .03	11.004	1:	i	1.011	2 ,.007	2 1
*		1.5	1	1	1	1	+	1	1
Total Birds	.398	35 516 7	7 .1.88	30 621.645	1741.349	38300	31.392	73 .379	114.
		1	,	1	1	1	1	1	1
Miles	88	149	1 33	1 270	109	1 10	1 186	1 305	1
		1	1	,	1	1	1	1	1
Hours	8.8	14.5	1 3	1 , 26.	4 . 11.	8 , 1.0	18.8	, 31.6	1
		1	1	9	1	1	1	-1	
		1	1	,	1.	1	11 -	1	*

(continued on next page)

Eastern Grid Survey # 14 29 Sept. - 5 Oct. 1967

Table 3. Linear Density and Abundance of species by sub-division.

(continued)

		. 1	+	1	S		W	C	E	
	7	1 8	.1	9 1	7-8-	9 '	1-4-7	2-5-8	13-6-9	TOTAL
	0.60	(, , , , , , , ,	1	1	ol o	201	00/1 071	060 18	1 026 55	' .133 100'
Sooty Shearwater	.068	6 .020 3	.0	1 1!	.040	TO	.094 21	.060 18		
Pink-footed Shearwater		1	1	,	1	2.1		.003 1	1.009 2	.004 3
Other Shearwater Petrels		1.007 1	1		.004	1		-	1.009 2	.004 3
Black Storm Petrel		1	1 .07		.004	1	010 1		*.004 1	.004 3
"Leach" Storm Petrel	.280	251.418 62	1 .0	1 1'	.351	88 '	.248 71'		1.154 36	.232 191
Brown Pelican		1	1	,				.003 1	1.009 2	.004 3
Golden Plover		1	1	,			.004 1'	10 m		.001 1
Phalaropes .		1.007 1	1	,	.004	1	.007 2		1.051 12	.022 18
Jaeger sp.		1	1.	1			.004 1		1.009 2	' .013 11
Skua		1	1	,	1.0			.007 2	1	.002 2
Tern sp.		1.007 1	1	,	.004	1	.004 1		1.064 15	' .041 34
Other Charadriformes		.1	4	,		,		.013 4	1.030 7	.013 11
Alcid sp.		1	1	,		,		.013 4	1.004 1	.006 5
Shoveler		1	1			,	.004 1		1	.001 1
Passerine sp.		*	1	. 1		,		.003 . 1	*	.001 1
Bird sp.		t	9	-1		*	1		1.013 3	1 .004 3
DITA DP.		1	Ŷ	1		*	,		1	1
Total Birds	.348	31'.459 68	1 .2	14 3'	.406	102	.364 104	.491 148	1.593 138	.472 390
"	90	1 7),0	, 1		251	,	286	307	233	* 826
# Miles	89	148	1	+	2)1		200	201	1	1
# Hours	8.4	1 15.1	, 1	.3	24.	3 '	29.0	30.6	1 23.2	82.8
11 110011		1	1	1		1			1	1
		1	1	- 1		1			1	1

AT/PASSAGE FROM _

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET



USS	DATE (GMT)	Feiclay	29. Jept	1967
	3	/	' /	

TABLE I

TIME	WIN VIFE	NDS ESTIMATED	DIL-	WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES		S	WELL WAVE	S
(GMT)	Direction (True)	Force (Knots)	(Miles)	(Symbols)	(Inches)	Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and tenths)	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00																	
01																	
02																	
03																	
04																	
05																	
06																	
07										×							
08																	
09																	
10												+					
11																	
12	340	10	10	ove	29.90	69	65	9	1500	50/cw	66	345	4.5	1	345	4sec	3-5
13							•										
14																	
15																	
16	340	12	10	5et	29.89	68	64	8	1000	51/50	66	345		1	345	35ec	35
17																	
18																	
19																	
20	340	14	10	ove	29.92	66	63	10	1000	57/5c	66	345		1-2	345	3 Sec	5-6
21																	
22																	
23													+				+

			POSITION O	F SHIP			WI	ND		WEAT	HER	PRESSURE			C	CLOUD	S		(6-0)	(6-0)	3-H PRE TENI	SSURE DENCY	\$10	GNIFIC	CANT	CLOUD
FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(True)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	Amount of Low Cloud	Type of C _L (0-9)	Height of Low Cloud	Jype of C _M (0.9)	Type of C _H (0.9)	Course of Ship (0-9)	Speed of Ship (0		Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L, L, La	L _o L _o L _o	GG	N	dd	ff	VV	ww	W	ррр	TT	Nh	CL	h	CM	Сн	Ds	Vs	а	рр	8	N _s	С	h _s h _s
SHIP	-				00																		8			
SHIP					06																		8			
SHIP					12										1								8			
SHIP					18																		8			

	1.10			SEA WA	AVES			SWELL	WAVES		1	CE AC	CRETIO	N			SEA	CE		
Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T _s T _s	T _d T _d	1	d _w d _w	Pw	Н"	1	dw dw	Pw	Н"	2	s	E _s E _s	Rs	ICE	C ₂	K	D;	r	e
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					

Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A ₁	A ₂	A ₃
Celsius	Celsius	Celsius

SHIP WEATHER OBSERVATION SHEET

PAS	SAGE FRO	M													TO .															
															TABLE	1														
IME	₩I □ ✓ IF	NDS STIMATE	D V	151- 31L-	WEAT	THER	BAF	ROMETE	R		PERAT es and	TURE tenths)			CLOUD	os		SE WAT TE	ER AP.			SEA W	AVES				S	WELL	WAVE	S
GMT)	Direction (True)	Force (Knots	(N	ITY Niles)	(Sym	bols)	((Inches)		Dry Bulb		Wet Bulb		ount nths)	Heigh	t	Туре	(Deg an tent	ees	Direc (Tr		Per (Seco			eight eet)	Dire (T	ction rue)		eriod conds)	Heig (Fee
00	130	14	1/	0	CL	12	36	1.7	9	65		63			2000	9	cu	6		00	00	-	3		3	0	30		3	4
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7														-																
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				POSIT	TION	OF S	HIP				WI	ND			WEATHER	F	PRESSURE			Cl	OUDS			(6-0)	P TE	3-HOUR RESSUR ENDENC	E	SIGN	IFICAN	T CLO
	ST GROUP OF	Day of Week	0c-		itude		_ongitu	ude TI	ME Clo	oud Dir	ection	Speed	Visi bil-	-	esent Pa	-+	Barometer	AIR TEMP.	of	CL	pno	¥	Ŧ,	Course of Ship (0-9)	Characteristic	of	enths)	Ŀ		
.M	ESSAGE	(1-7) (GMT)	(0-3) (5-8)	а	grees ind nths)		(Degre and tenths		(Con		rue) 0-36)	(True) (Knots	100.0	99) (0	0-99) (0-	9)	(Mb)	TEMP.	Amount -ow Clo	Cype of 0-9)	leight o	(0-9)	(0-0)	ourse	Speed of Ship (Characteristic	Amount of Change	Mb and t	Indicator	(Eights)	- Abe
	1	2	3		4	+	5		5 7	7	8	9	10		11 12		13	14	15	16	-	_		20 2		+	24		25 2	-
		Y	Q	L, l	L, L	a L	- _o L _o	L _o G	G N	1	dd	ff	VV	,	ww W	1	ррр	TT	Nh	CL	h	CM (CH C	o _s V	s a	pp	8	s h	N _s (: H
	SHIP							(00							1											8			
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			SEA	WAVE	S			SWELL	WAVES		1	CE ACC	RETION	1		:		SEA ICE								DO NO	T TR	ANSMI	Т	
	SEA POIN																				поп			D			V . D	11		Sea Wat
	oded)	Indicator	Direction (Coded)	riod	(Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicat	tor	Kind	Effect	Bearing	Distance	Orientation		(Dry Bu Degree nd tent	es	(Vet Bul Degree nd tenth	es		Temp.
				-						-												_							a	nd tent
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		,													ICE							+		-		-				

ICE

SHIP WEATHER OBSERVATION SHEET

USS									DATE (GMT) Z	luca	day	5 de	+	19 67	,	
AT/PAS	SSAGE FROM	м							TO			1					
									TABLE I								
TIME	WIN □ √ IF E	NDS ESTIMATED	DIT.	WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES		S	SWELL WAVE	S
(GMT)	Direction (True)	Force (Knots)	(Miles)	(Symbols)	(Inches)	Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)

Period Height (Seconds) (Feet)			SEA WAVES		WATER TEMP.		CLOUDS		ATURE and tenths)	(Degrees a	BAROMETER	WEATHER	VISI- BIL-	STIMATED	□ √ IF E	TIME
	Direction (True)	Height (Feet)	Períod (Seconds)	Direction (True)	(Degrees and tenths)	Туре	Height	Amount (Tenths)	Wet Bulb	Dry Bulb	(Inches)	(Symbols)	(Miles)	Force (Knots)	Direction (True)	(GMT)
35e. 3	280	1	-	180	66	50	1500	2	63	65	30.01	CLR	10	2	190	00
																01
																02
																03
~		X			X			X		e	NON				X	04
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3	030			360	60	-	1600	2	641	68	30.11	CIR	10	12	200	08
																09
						1				\ 						10
																11
3 3	000	2	-	000	100	Ac	2500	1	68	70	30:12	CIR	10	10	030	12
																13
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3 3	035	2	-	030	68	CU	2500	3-	69	71	30.18	SCTE.	10:	12	205	16
																17
																18
3 sec 3.	010	2	-	010	68		_	8	66	68	30.08	CLR	10	18	000	20
														-		
																22
	035	2			68	CU	2500	3-	69	71	30.18	ScT:	10:	12	205	10 11 12 13 14 15 16 17 18

			POSITION O	F SHIP			WII	ND		WEAT	HER	PRESSURE			C	CLOUD	os		(6-0)	(6-0	3-I PRE TEN	HOUR ESSURE DENCY	SI	GNIFIC	CANT	CLOUD
FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(1100)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	Amount of Low Cloud	Type of C _L (0.9)	Height of Low Cloud	Type of C _M (0-9)	Type of C _H (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Туре	Heigh
1	2 '	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L _a L _o L _a	Lo Lo Lo	GG	N	dd	ff	VV	ww	W	ррр	TT	Nh	CL	h	CM	Сн	Ds	V _s	a	рр	8	Ns	С	h _s h _s
SHIP					00																		8			
SHIP					06																		8			
SHIP				-	12																		8			
SHIP					18																		8			

	AID.			SEA W	AVES			SWELL	WAVES		-	CE AC	CCRETIO	N			SEA	CE		
Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T _s T _s	T _d T _d	1	dw dw	P _w	Н"	1	d, d,	Pw	H _w	2	s	E _s E _s	R _s	ICE	C ₂	К	Di	r	е
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					

Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths
A ₁	A ₂	A ₃
Celsius	Celsius	Celsius

SHIP WEATHER OBSERVATION SHEET

T/PAS	SAGE FROM	М									TO	(GMT) U				1								
		NDS	VIICI				ТЕМР	ERATURE			TABLE I		SEA		-	SEA WAY	VEC							
TIME (GMT)	Direction	Force	DIL-	WEATHER (Symbols)			(Degree Dry	s and tent		nount	CLOUDS		WATER TEMP. (Degrees		ection	SEA WA		Hei	aht	Direct		Period		
	(True)	(Knots)	(Miles)				Bulb	Bul	ь (Те	nths)	Height	Туре	tenths)	(7	True)	(Second		(Fe		(True		(Second		Heigh (Feet
00	280	5	10	clr.	29.9	9	65	62	2 ,	0	-	-	66	2	70	-		1		00	0	350	c	3
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10																								
11																				-				
12	140	6-3	10	CLR	30100	2	76	68	3 1	5			66	30	00	-		1		300	0	950	0	5-
13																								
14																								
15																								-
	300	6-8	10	CLR	30.00		72	6	7				68	3	30			-	3	000		_		3
17								-			-	1												
18													-											
19																	-							
20	210	4	8	ove	30.0	5 /	72	71	1	0	1000	50	66	R	10	-	-	1		28	30	350	4	3-
22														+										
23						-		-					+	+	-		-							
										TA	BLE II		1											
									SYNO		OBSERVAT	IONS					_		3	HOUR				
rint	- 000110	Day	POSI	TION OF	SHIP	Т	otal	MIND	Vis		WEATHER	PRESSURE		(LOUDS		(6-0)	(6-0)	TEN	HOUR ESSURE NDENCY	S	IGNIFIC	ANT	CLO
	T GROUP OF SSAGE	of Week to	nt (De	ritude grees		IME C	lloud Amt. Direc	tion Sp	bil bil ity		esent Past	Barometer Corrected	AIR TEMP.	of CL	buo	F CH	(0-9) Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	of tenths)	or	. 7		Н
		(1-7) (0- (GMT) (5-		and nths)	and tenths)	(0	oded) (00-		ots) (90-	99) (00	0-99) (0-9)	(Mb)	3	Type o (0-9)	Height of Low Cloud	Type of CH	Course	Speed	Charac (0-8)	Amount of Change (Mb and tenths	Indicator	Amount (Eights)	Type	
	1	2 3	3	4	5	6	7 8		10		11 12	13	14 15			18 19	20	21	22	23	24	25	26	
		Y	Q L _a	L, La I	Lo Lo Lo	GG	N d	d ff	V\	/	ww W	ppp	TT N	CL	h (C _H	Ds	Vs	a	pp	8	Ns	С	h
	SHIP					00															8			
	SHIP					06															8			
	SHIP					12															8			
	SHIP					18															8			
														,										
		S	EA WAVE	S	SWELL	WAVE	S	ICE A	CCRETION	1			SEA ICE						[TON OC	TRAN	ISMIT		
SI	IR- EA POIN		To leave the					154 6							uc								San	Wate
	FF. (°C)	Indicator	(Coded)	(Coded) Height (Coded)	Indicator Direction (Coded)	Period	Height (Coded)	Indicator	Thickness	e	Indicator	Pt.	Effect Bearing	Distance	Orientation		(De	Bulb		(De	Bulb		Te (De	emp.
		Indi	(Cor	Heig (Co	Indi Dire (Cox	Per	Hei (Co	Soun	Thi	Rate		Kind	Eff	Dis	Ori		and	tenths)	and t	enths)	and	tenth
2	9 30	31	32 3	33 34	35 36	37	38	39 40	41	42	43	44	45 46	47	48			A		A	2			A3

ICE

ICE

ICE

ICE

Celsius

Celsius

Celsius

SHIP WEATHER OBSERVATION SHEET

1 //	_		
1	5	/	
		19	

USS	DATE (GMT)	19
AT/PASSAGE FROM	то	

TABLE

TIME	(True) (Knots)			WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES		S	WELL WAVE	S
(GMT)			(Miles)	(Symbols)		Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and tenths)	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	040	14	8	Rain	29.90	65	63	10	1000	5+	66	000	-	24	280	3 Sec	3 A
01											9						
02																	
03																	
04		X			X			NO	Ne			TA	HOL	-			×
05					/												
06																	
07																	
08	020	12	8	ove	29.90	66	64	10	1000	5T/50	66	005	-	1-2	000	4Sec	3 K
09																	
10																	
11																	
12	010	14	10	50te	29.96	67	64	4	1000	50/cm	66	005	-	1-2	000	4 sec	3-56
13																	
14																	
15														'			
16	000	10	10	Sotr	29.94	67,5	64.5	4	1000	cu	66	000		1-2	000	Hse c	3-5
17																	
18																	
19																	
20	X			X		No	1/4		X			X			X		X
21																	
22																	
23																	

			POSITION OF	F SHIP			WII	ND		WEAT	HER	PRESSURE			(CLOUD	S		(6-0)	(6-0)	3-H PRE TENI	IOUR SSURE DENCY	\$10	GNIFIC	CANT (CLOUD
FIRST GROUP OF MESSAGE	of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(True)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	= -	Type of C _L (0-9)	Height of Low Cloud	Type of C _M (0-9)	Type of C _H (0-9)	Course of Ship (0-9)	Speed of Ship (C	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Heigh
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L, L, La	L _o L _o L _o	GG	N	dd	ff	VV	ww	W	PPP	TT	Nh	CL	h	CM	Сн	Ds	Vs	σ	рр	8	N _s	С	h _s h _s
SHIP					00																		8			
SHIP					06																		8			
SHIP					12																		8			
SHIP					18																		8			

		SEA W	AVES			SWELL	WAVES		1	CE AC	CRETIO	N			SEA I	CE		
DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
T _d T _d	1				1	dw dw	Pw	Н"	2	Is	E _s E _s	R _s	ICE	C ₂	К	D;	r	e
	1				1				2				ICE					
	1				1				2				ICE					
	1.				1				2				ICE					
	1				1				2				ICE					
	-	1	1	1	1	1. 1	1 1	1 1	1 1	1 1 2	1 1 2	1 1 2	1 2	1 2 ICE	1 1 2 ICE	1 2 ICE	1 2 ICE	1 2 ICE

Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths
A ₁	A ₂	A ₃
Celsius	Celsius	Celsius

SHIP WEATHER OBSERVATION SHEET

				(4)	
USS		DATE (GMT)			19
AT/PASSAGE FROM		TO			
		TABLE I			
WINDS VISI-	TEMPERATURE	CLOUDS	SEA WATER	SEA WAVES	SWELL WAVES

									TABLE								
TIME		NDS ESTIMATED	DIL-	WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES	*	5	SWELL WAVE	S
(GMT)	Direction (True)	Force (Knots)	(Miles)	(Symbols)	(Inches)	Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and tenths)	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	350	8	10	cir	29:90	65	62	0		_	66	350	*	1	350	3 S.Ec.	3
01																	
02																	
03																	
04																	
05																	
06																	
07																	
08	260	10	10		29.86	69	67	3	1000	Cum	68	300			300		3-5
09																	
10																	
11										10/							
12	250	14	10	CLR	29.87	72	69	2	10000	AS/AS	68	280	-	1	310	4sec	3-6
13																	
14						W											
15																	
16	250	10	10	CLR	29.86	71	68	2	1000	cw	68	280	-	1	300	4sec	3-5
17																	
18					4												
19										- 11							
20	270	12	10	ove	29.86	68	65	9	1000	50/51	67	270	-	1	230	4 Sec	3-6
21																	
22																	
23																	

TABLE II SYNOPTIC OBSERVATIONS

			POSITION O	F SHIP			WII	ND		WEAT	HER	PRESSURE			C	LOUD	S		(6-0)	(6-1	3-H PRE TEN	HOUR SSURE DENCY	SI	GNIFIC	CANT (CLOUD
FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(True)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	Amount of Low Cloud	Type of C _L (0-9)	Height of Low Cloud	Type of C _M (0-9)	Type of C _H (0.9)	Course of Ship (Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Heigh
1	2	3	4	5	6	7	8	9	10	11.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L _a L _a L _a	L _o L _o L _o	GG	N	dd	ff	VV	ww	W	ррр	TT	Nh	CL	h	CM	СН	Ds	Vs	a	рр	8	Ns	С	h _s h _s
SHIP					00																		8			
SHIP					06																		8			
SHIP				-	12																		8			
SHIP					18																	1	8			

Sea Water

Temp.

(Degrees

and tenths)

A₃

Celsius

	AIR-			SEA W	AVES			SWELL	WAVES		1	CE AC	CCRETIO	N			SEA	ICE				DO NOT TRANSMIT	
Indicator	SEA DIFF. (Coded)	DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A	A ₂	
0	T _s T _s	T _d T _d	1	dw dw	Pw	Н"	1	d _w d _w	Pw	Н"	2	ıs	E _s E _s	Rs	ICE	C ₂	K	Di	r	e	Celsius	Celsius	
0			1				1				2				ICE								
0			1				1				2				ICE							T.	
0	11		1				1				2				ICE								
0			1				1				2				ICE								

REMARKS	EXAMINED	USN, NA	VIGATOR

24 hr. found or soon as they get it.

SHIP WEATHER OBSERVATION SHEET

USS	DATE (GMT) Sunday 1, Oct 19 67
AT/PASSAGE FROM	TO

									TABLE I								
TIME		NDS ESTIMATED	VISI- BIL-	WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES		S	WELL WAVE	5
(GMT)	Direction (True)	Force (Knots)	A company to a	(Symbols)	(Inches)	Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and tenths)	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	355	22	10	CLR	29.98	65	63	-	-	-	66	350		1-2	350	3 Sec	5.7
01																	
02																	
03																	
04																	
05					May.												
06																	
07																	
08	350	26	10	5cT	29.90	69	66	3	1600	co	68	340		1-2	340	35ec	6-10
09																	
10																	
11																	
12	350	22	10	CLR	29.92	66	64				66	345		1-2	340	3 Sec	8-12
13																	
14																	
15																	
16	350	18	10	SCT	2989	66	63	5	10000	A5/05	66	345		1	345	3 sec	6-8
17																	
18																	

TABLE II SYNOPTIC OBSERVATIONS

			POSITION OF	F SHIP			WI	ND		WEAT	HER	PRESSURE				CLOUD	S		(6-0)	(6-1	3-H PRE TEN	HOUR SSURE DENCY	\$10	GNIFIC	ANT (CLOUD
FIRST GROUP OF MESSAGE	of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(True)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	Amount of Low Cloud	Type of C _L (0-9)	Height of Low Cloud	Type of C _M (0-9)	Type of C _H (0.9)	Course of Ship (Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Туре	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L, L, La	Lo Lo Lo	GG	N	dd	ff	VV	ww	W	ррр	TŢ	Nh	CL	h	CM	Сн	Ds	Vs	а	рр	8	N _s	С	h _s h _s
SHIP					00																		8			
SHIP					06																		8			
SHIP					12																		8			
SHIP					18																		8			

A ID			SEA WA	AVES			SWELL	WAVES		1	CE AC	CRETIO	N	SEA ICE			CE		
SEA DIFF. (Coded)	DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
T _s T _s	T _d T _d	1	d _w d _w	Pw	Н"	1	d _w d _w	Pw	Н"	2	Is	E _s E _s	Rs	ICE	C ₂	K	Di	r	e
		1				1				2				ICE					
		1				1				2				ICE					
		1				1				2				ICE					
		1				1				2				ICE					
	DIFF. (Coded)	SEA DIFF. (Coded) POINT (°C)	SEA DIFF. (°C) SEA POINT (°C) \$50.0000000000000000000000000000000000	AIR-SEA DIFF. (°C) DEW POINT (°C) (Coded) (°C) (Coded)	AIR- SEA DIFF. (Coded) DEW Polint (°C) Deriod 29 30 31 32 33	AIR- SEA DIFF. (Coded) DEW Period (Coded) 29 30 31 32 33 34	AIR- SEA DIFF. (Coded) 29 30 31 32 33 34 35	AIR- SEA DIFF. (Coded) 29 30 31 32 33 34 35 36	AIR- SEA DIFF. (Coded) DEW Point (°C) Deriod 29 30 31 32 33 34 35 36 37	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 T _s T _s T _d T _d 1 1 1 2 1 1 2	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 T _s T _s T _d T _d 1 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 T _s T _s T _d T _d T _d 1 1 1 1 2 1 1 2 1 1 2 1 1	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 T _s T _s T _d T _d T _d 1 1 1 1 2 1 1 2 1 1 1 2 1 1	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 T _s T _s T _d T _d 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 2 l _s E _s E _s R _s ICE 1 1 1 2 ICE 1 1 2 ICE	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 T _s T _s T _d T _d 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 2 l _s E _s E _s R _s ICE C ₂ 1 1 2 1 1 2 ICE 1 1 2 ICE	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 T _s T _s T _d T _d 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 2 l _s E _s E _s R _s ICE C ₂ K 1 1 2 1 2 ICE	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 T _s T _s T _d T _d 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 2 I _s E _s E _s R _s ICE C ₂ K D _i 1 1 2 1 1 2 ICE	AIR-SEA DIFF. (Coded) 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 T _s T _s T _d T _d 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 1 d _w d _w P _w H _w 2 l _s E _s E _s R _s ICE C ₂ K D _i r 1 1 2 1 2 ICE ICE

350 16 10 Sct 29.86 64 62 5 10000 A5/C5 66 345

Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A ₁	A ₂	A ₃
Celsius	Celsius	Celsius

1 345 3 Sec 5-7

19

20

21

22

SHIP WEATHER OBSERVATION SHEET

(2)
DATE (GMT) Daturday 30, Sept 19 67
TABLE I

									TABLE								
TIME		NDS ESTIMATED	VISI- BIL-	WEATHER	BAROMETER		RATURE and tenths)		CLOUDS		SEA WATER TEMP.		SEA WAVES		S	SWELL WAVE	S
(GMT)	Direction (True)	Force (Knots)	(Miles)	(Symbols)	(Inches)	Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Туре	(Degrees and tenths)	Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	340	10	10	CLR	29.94	66	64	5	1500	20	66	345		1	345	3 sec	3-4
01																	
02																	
03		4					1 .1	. 1		50	,,	4.13		-			
04	345	8	10	CLR	29.97	66	64	4	1000	50	66	345		/	345	3500	2-4
06																	
07																	
08	345	12	10	CLR	30,00	69	66	4	1500	Cerpo	66	343		1-2	345	3sec	2-4
10																	
11																	
12	010	14	10	CLR	30.04	71	68	4	1500	Cu/cs/co	18	000		1	000	3 See	4-5
13		14-18	}														
14																	
	1000	15-10	10	CIR	30.00	19	la Ca	0			18	000		1	000	Same	5-6
17		/ / / 0	10		20.00	0 (60					346	0 0
18																	
19,																	
	000	22	10	CLR	29,98	65	62	2	1500	co/cc	65	000		7	000	35ec	3-5
21																	
22																	
23																	

			POSITION O	F SHIP			WI	ND		WEAT	HER	PRESSURE			C	LOUD	S		(6-0)	(6-1	3-H PRE TEN	HOUR SSURE DENCY	\$10	GNIFIC	CANT (CLOUD
FIRST GROUP OF MESSAGE	of Week (1-7) (GMT)	Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	TIME (GMT)	Total Cloud Amt. (Coded)	(True)	Speed (True) (Knots)	Visi- bil- ity (90-99)	Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	AIR TEMP. (°C)	Amount of Low Cloud	Type of C _L (0-9)	Height of Low Cloud	Type of C _M (0.9)	Type of C _H (0.9)	Course of Ship (Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Туре	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L _a L _c L _a	Lo Lo Lo	GG	N	dd	ff	VV	ww	W	ррр	TT	N _h	CL	h	C _M	СН	Ds	Vs	a	рр	8	N _s	С	h _s h _s
SHIP					00																		8			
SHIP			×		06																		8			
SHIP					12																		8			
SHIP					18																		8			

	AIR-			SEA WA	AVES			SWELL	WAVES		1	CE AC	CRETIO	N			SEA	CE		
Indicator	SEA DIFF. (Coded)	DEW POINT (°C)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T _s T _s	T _d T _d	1	d _w d _w	Pw	Н"	1	dw dw	Pw	н"	2	Is	E _s E _s	Rs	ICE	C ₂	К	D;	r	e
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					
0			1				1				2				ICE					

Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A ₁	A ₂	A ₃
Celsius	Celsius	Celsius

SHIP LT 2080 DATE 28 Sept 1967 E.A.C: CRUISE DATA LAT. LONG. TIME 122-22 - Tresson Island 122-25 SUNRISE 1851 3643 SUNSET TOTAL MILES TRAVELED SUNRISE TO SUNSET 65 POSITION LONG. LAT. TIME 0400 0600 0800 1000 - clearing horber. 122-41 1400/4/3 37-30 1600 1620 3709 1800 22-28 36-53 2000 22-23 2400 COURSE OR SPEED CHANGE (AT) TO LAT. LONG. FROM

9 miles off and Muevo Irland. En 1650 hours.

E.A.C. CRUISE DATA SHIP 17-2085 DATE 29 5-67

TIME LAT. LONG.

SUNRISE 0700 352 122-26W SUNSET 1912 352 125-00W

TOTAL MILES TRAVELED SUNRISE TO SUNSET 130

POSITION

TIME	LAT.	LONG.
0400	35-08N	122-04W
0600	35-00N	122-20w
0800	35-00 N	122-47 W
1000	35-00 N	123-21W
1200	34-58N	123-40W
1400	34.56N	124-02W
1600	34-54N	124-30W
1800	34-56 N	124-52W
2000	34-57N	125-10W
2400		

COURSE OR SPEED CHANGE

		TO (AT)	LAT.	LONG.
0440	170 T	2701	35N	122-02 W
	2701	スフスエ	34-540	124-30W
	The state of the s			

E.A.C. CRUISE DATA SHIP 2085 DATE 30 Sept

TIME LAT. LONG.

SUNRISE 0716 34-10N 126-22W SUNSET 1903 34-07 12359

TOTAL MILES TRAVELED SUNRISE TO SUNSET 1/6

POSITION

TIME	LAT.	LONG.
0400	34-42N	126-30W
0600	34-12.N	126-30W
0800	34-100	126-07W
1000	34-09	125-57
1200	34-08	125-20
1400	3406	/15-00
1600	34-06	124-33
1800	34-06	124-13
2000	34-07	123 = 48
2400		

COURSE OR SPEED CHANGE

FROM	TO (AT)	LAT.	LONG.
270T	1807	352	126-30W
180T	0901	34-10N	126-30W

TIME LAT. LONG.

SUNRISE 070/ 34-08 121-27

SUNSET 1853 33-22 122-39

TOTAL MILES TRAVELED SUNRISE TO SUNSET 124

POSITION

TIN	Æ	LAT.	LONG.
040	00	34-07	122-06
060	00	34-07	
080	00	341-07	121 20
100	00	33-40	121-17
120	00	33-20	121-20
140	00	33-20	121 -44
160	00	33-21	122-05
180	00		122 = 35
200	00	33-20	122-44
240	00		

COURSE OR SPEED CHANGE

	TO (AT)	LAT.	LONG.
090	180	34-08	121-20
	272	33 20	121-20
The state of the s			
gaggadi asaganingi matakan ing Sila-Pilipan Mila. Hi melinga			

E.A.C. CRUISE DATA SHIP 2085 DATE 02-064 1960

TIME LAT. LONG.

SUNRISE 0715 33-17° 125-18

SUNSET 1905 32-33 125-22

TOTAL MILES TRAVELED SUNRISE TO SUNSET 119

POSITION

TIME	LAT.	LONG.
0400	The state of the s	The many residence has no the contractable to extract contracts within the ballionistic temps of the first the contract temps.
0600	33-18	
0800	33-16	125-28
1000	33-22	125-47
1200	33-15	125-56
1400	22-53	125-55
1600	32-33	12558
1800	32-32	125-34
2000	32-32	125-11
2400		The state of the s

COURSE OR SPEED CHANGE

FROM	TO	(AT)	LAT.	LONG.
2.22	180		33-22	126-00
180	- 08	5	32-30	125-58
Tanker of their stade was sident to describe the second				
promise angularies des para de la constitución de l	1			
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E.A.C. CRUISE DATA SHIP 2085 DATE 3 00167

TIME LAT. LONG.

SUNRISE 0707 32-29N 123-22W SUNSET 1848 32-06N 120-59W

POSITION

TIME	LAT.	LONG.
0400	32-30N	124-02W
0600	32-29N	123-37w
0800	32-29~	123-10W
1000	32-30N	122-45W
1200	32-300	122-12W
1400	32-282	121-53w
1600	32-252	121-25w
1800	32-150	121-00 W
2000	31-532	120-59W
2400		

COURSE OR SPEED CHANGE

	FROM	TO (AT)	LAT.	LONG.
1600	0901	1197	32-25N	121-25w
1800	1197	1807	32-15N	121-00W
2115	130T	2701	31-40N	121-00W
	The state of the s			
	mand/pagging in the /the time interests in mathematic			
		The contract of the contract o		

EAC Cruise Data # 5hip 2085 Data 4, oct 67

Time Lat Long
- Summie 0910 31-40N 123-06N
- Sum Sch 1902 31-37N 125-40W

Total Miles Fravelled Sumise to Sumset _ 20.5

1600 0400	31-402	122-30W
0600	31-392	122-55w
0800	31-372	123-20W
000	31-372	123-46 w
200	31-35 N	124-06 W
1400	31-352	124-31 W
1600	31-382	125-03W
1800	31-382	125-280
1000	31-372	125-50 W
400	31-35N	126.28W

Course & Snew Chage

11 me	From	80	Lat	207
2308	270 T	180T	31-36 N	126-30W

					P		OI.	BSERVERS:	
	-					NIAN INSTITUTION ISION OF BIRDS			
Shi Di	p rection	n			AT SE SPECIMEN	LA DAILY LOG - E		Date Pg.#	
	TIME	SPECIES	#	DIR.	or BAND NO	REMARKS			
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									SI-MNH-958-e Rev. 5-66

FAC Cruss Data Ship 2085 Pete 5,0ct 67

Time Lat Long

- Suneise 0719 30-50N 125-47W

- Sunset 1856 30-49N 123-32W

To fol Miles fraveled Sun rise to Sunset 65

0400	30-50N	126-20 W
0600	30-492	125-56 W
0800	30-48N	125-28w
1000	30-48N	125-09 W
1200	30-50N	124-45w
1400	3050N	124-24w
1600	30-45N	124-06 W
1800	30-49N	123-42 W
2000	30-52N	123-20W
2400		

Course & speed Change that

Time From To to 126-30W

0340 180T 090T 31-50N 126-30W

		1				OBSE	ERVERS:
				SMITHSONIAN INSTITUTION			
Ship Direction		n		DIVISION OF BIRDS AT SEA DAILY LOG - E		-	Date
	TIME SPECIES		# I	SPECIMEN or DIR. BAND NO. REMARKS			Pg.#
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w							SI_MNH_050
							SI-MNH-958-6 Rev. 5-66

EAC Cruise Onto 5 un rise hat Sunsch Total miles fromelled from Survive & Sunch _ Time 0400 0600 0800 1000 1200 1400 1600 1800 2000 2400 Course & Speed Change Time From To

					OBSE	RVERS:
Shi Di	p rectio	n	#	DIV		Date Pg.#
						5
						SI-MNH-958-e Rev. 5-66